

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007128**Date Inspected:** 18-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei / Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Heavy Equipment Shop Bay 10:

The QA Inspector randomly observed ZPMC welder Liu Xiao Yan ID 207745 utilizing the Submerged Arc Welding (SAW) Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-TC-U3c-S-2 in the 1G (Flat Groove) Position to weld a butt seam in Lift 3 North Skin E Longitudinal Stiffener between piece marks LS3-50 and LS3-46 at Weld Joint (WJ) NSD1-FESA3-1B/D-12A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 650 amps, 30 volts with a travel speed of 576 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed 1 Carbon Air Arc Gouging Process (CAAG) to back gouge butt seams in Lift 3 North Skin E Longitudinal Stiffener in WJ's NSD1-FESA3-1C/D-7A and 8A.

The QA Inspector randomly observed 1 Carbon Air Arc Gouging Process (CAAG) to back gouge butt seams in Lift 3 North Skin A Longitudinal Stiffener in WJ's NSD1-FASA3-1E/E-5A and 8B.

Heavy Equipment Shop Bay 11:

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The QA Inspector randomly observed ZPMC welder Zhang Bing Hua ID 053316, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC (WPS) WPS-B-T-2232-TC-U5-F in the 2G (Horizontal Groove) Position to weld Longitudinal Stiffener C2-LS3-16E to Lift 3 Skin C at Weld Joint WJ ESD1-FCSA3-2B/C-12A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 316 amps, 31.6 volts with a travel speed of 230 mm per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Wang Yin Sheng ID 040775, utilizing the FCAW Process with ZPMC WPS WPS-B-T-2232-TC-U5-F in the 2G (Horizontal Groove) Position to weld Longitudinal Stiffener C2-LS3-16E to Lift 3 Skin C at Weld Joint WJ ESD1-FCSA3-2B/C-19B. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 309 amps, 30.8 volts with a travel speed of 210 mm per minute. Weld parameters appeared to comply with contract requirements.

OBG Sub-Assembly Bay 12:

The QA Inspector randomly observed ZPMC welder Han Si Qi ID 202842, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC WPS WPS-345-FCAW-2G (2F)-Repair in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions to weld U-Rib repairs at WJ's 001 through 010 on Deck Plate 8BW-DP147-001 after PAUT Inspection. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

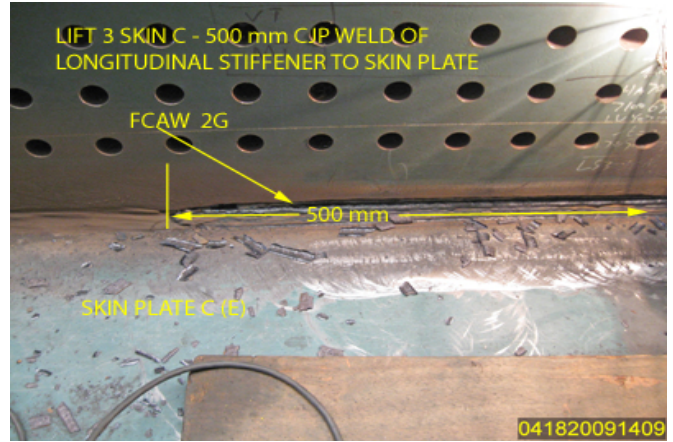
The QA Inspector performed a Final "In Process" Visual Inspection (VT) on Deck Plate 8BE-DP471-001-001 through 010 per ZPMC NDT Inspection Notification Sheet 002697. There appeared to be no indications and the QA Inspector accepted the VT for 8BE-DP390-001-001 through 010. The QA Inspector signed the Green Tag Documents for Green Tag 496.

The QA Inspector randomly observed ZPMC welder Wang Xiao Rong ID 059445, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2F (Horizontal Fillet) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2132-2, to fit up and tack weld stiffeners to Tower Facade Built Up Assembly A148. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
